



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,447	01/14/2002	Manfred Jagiella	HOE-669	1068

20028 7590 03/29/2004

LAW OFFICE OF BARRY R LIPSITZ
755 MAIN STREET
MONROE, CT 06468

EXAMINER

PHAM, HOA Q

ART UNIT	PAPER NUMBER
----------	--------------

2877

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/047,447	Applicant(s) JAGIELLA ET AL.	
	Examiner Hoa Q. Pham	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2002.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 50-98 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 50-98 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 14 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/02, 12/02, 6/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 50-76 and 90-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtomi (4,894,597) in view of Franklin et al (6,628,408).

Regarding claims 50, 6-66, 68-69, 72, 90, 92-94 and 98; Ohtomi discloses a deburring robot comprises a non-contact distance sensor (97) with a detector head (9) is positioned at a distance to the workpiece (6), the detector head and the workpiece are movable relative to one another (figures 2-4). Ohtomi does not explicitly teach that the detector head is couplable electromagnetically to the workpiece; however, such a feature is known in the art as taught by Franklin et al. Franklin et al, from the same field of endeavor, teach that the distance sensor (40) in which the current flows through a coil (41) sealed in the housing (42). The electromagnetic field (45) of the coil (41) induces eddy currents in the conductive target (44) (see figures 9-10 and column 7, lines 6-20). It would have been obvious to one having ordinary skill in the art at the time

the invention was made to replace the detector head of Ohtomi by a detector head of Franklin et al because they are both used for distance measurement. A substitution one for another is generally recognized as being within the level of ordinary skill in the art.

Regarding claim 51, see figure 9-10 of Franklin et al for active surface.

Regarding claims 52-56, 91, and 97; see column 3, lines 1-6 of Franklin et al for moving relative between the detector head and workpiece. It also would have been obvious to one having ordinary skill in the art at the time the invention was made to move and/or rotate the detector head in different directions so that the whole surface is inspected.

Regarding claims 57, 61, see column 2, lines 57-59 for detector position adjusting mechanism (10).

Regarding claims 58-60, using a distance measuring probe for inspecting a bore in a workpiece is well known in the art, thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Ohtomi for the purpose of inspecting the bore in a workpiece.

Regarding claim 67, see column 3, lines 7-19 of Ohtomi for comparison.

Regarding claims 70-71, 74, and 96, see column 7, lines 21-29 of Franklin et al for the use of an inductive sensor.

Regarding claim 73, see column 7, lines 49-50 of Franklin et al for the use of the fiber optic displacement sensor.

Regarding claims 75-76 and 95, see figure 10 and column 7, lines 30-35 of Franklin et al for capacitive displacement measuring device (60).

4. Claims 77-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtomi and Franklin et al as applied to claim 50 above, and further in view of Matsuura et al (5,243,265).

Regarding claims 77-81 and 88-89, both Ohtomi and Franklin et al does not explicitly teach the device having a second distance sensor or a plurality of sensors; however, such a feature is known in the art as taught by Matsuura et al. Matsuura et al, from the same field of endeavor, teach the use of two distance sensors (5a and 5b)(see figures 1 and 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include in Ohtomi an additional distance sensor as taught by Matsuura et al. The rationale for this modification would have arisen from the fact that using additional sensor would increase the speed of the measurement.

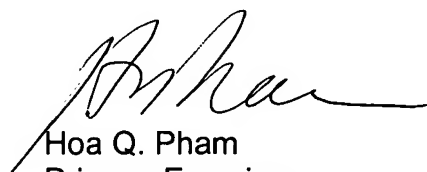
Regarding claims 82, 83, and 86-87; Matsuura et al does not explicitly teach that the sensors have the same viewing plane or offset viewing plane or different view directions. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adjust the sensors so that they are measuring the distance at different viewing planes or directions. The rationale for this modification would have arisen from the fact that the viewing planes or directions are adjusted on the basis of different shapes, diameter of the workpieces.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Following references are relative to distance measuring device: Ito et al (4,567,347), Neumann (61,55,757 and 4,824,248), McLaughlin et al (4,777,769).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (571) 272-2426. The examiner can normally be reached on 7:30AM to 6 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hoa Q. Pham
Primary Examiner
Art Unit 2877

HP
March 18, 2004